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(21) Application number: **06185235**(71) Applicant: **TOSHIBA CORP**(22) Date of filing: **14.07.94**(72) Inventor: **ISHIKAWA HISAMITSU**

(54) **RESIN SEALING SEMICONDUCTOR DEVICE AND
 ITS MANUFACTURING METHOD**

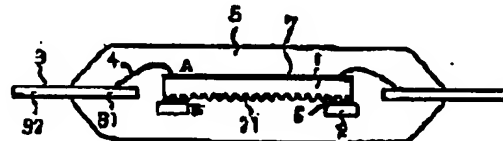
processing to enhance the close adhesion.

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(57) Abstract:

PURPOSE: To provide a resin sealing semiconductor device for enhancing bending strength of a semiconductor substrate and enhancing a close adhesion between a rear surface of the substrate and a resin sealer.

CONSTITUTION: A bonding pad of a semiconductor substrate 1 faces a portion of an inner lead 31 at a top end on the resin sealing side of a lead 3 and the both are connected electrically to each other via a bonding wire 4. The inner lead 31 is integrally connected to an outer lead 32 projecting outwardly of a resin sealer 5. The resin sealer 5 seals a substrate mounting part 2, the substrate 1 mounted and fixed thereto, the inner lead 31 and the bonding wire 4. As a stress generates in the resin sealer due to a heat-generation when mounting to generate cracks, an opening 21 is formed in a part of the substrate mounting part so that a stress is scattered to prevent a generation of cracks. As a rear surface B of the substrate 1 directly comes into contact with the resin sealer, etching liquid composed of sulfuric acid + fluoric acid/nitric acid is used, and fine recesses and projections are formed by bubble



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